

Selective exposure on Facebook: Public opinion of Dutch and Slovenian undergraduate students

Petra Ravbar

University College Roosevelt

p.ravbar@ucr.nl

ABSTRACT

This study investigated the causes and consequences of selective exposure on Facebook. The sample included Dutch and Slovenian ($N = 134$) undergraduate students. The results show that people who see, read, or click more news posts on Facebook feel more informed about the current political issues. Moreover, using Facebook as the main source of news was shown to go strongly influence the strength of the opinions towards political topics, namely immigration and membership in the EU. In overall, the study suggests that ideological selectivity to political information is influenced by the use of social media.

Keywords

Selective exposure, Facebook, students, immigration, EU

INTRODUCTION

In February 2016, British newspaper The Independent announced it will shut down its printing presses and exist solely online. The act was justified by the changing trends in newspaper industry, which in the last years became increasingly more digital (The Independent, 2016). These changes are reflected in the study by Pew Research Centre, showing that in 2016, half of U.S. adults between the ages of 18 and 49 reported they often get news online (Mitchell, Gottfried, Barthel & Shearer, 2016). Moreover, when it comes to news about government and politics, Facebook is by far the most common source of news for this cohort (Mitchell, Gottfried & Matsa, 2015). In contrast to traditional media that provides a broader range of themes, Facebook users are more likely to see the news that fit their political beliefs, and are therefore rarely exposed to the information that contradicts their views (Bakshy, Messing & Adamic, 2015).

While much has been written about the impact of social media on people's everyday lives, there is a limited amount of peer-reviewed research on the topic of selective exposure on social media, especially in relation to extensive use of the networking sites and political polarization.

The aim of this paper is to investigate the antecedents and consequences of selective exposure on social media using a questionnaire and an online selection experiment. The antecedents will look into the frequency of social media use, the impressions of news exposure and into user's online behaviour (Müller, Schneiders & Schäfer, 2016). The investigated effect of selective exposure will be political polarization (Stroud, 2010). To understand the selective exposure in practice, the paper aims to research

the attitudes towards two European political issues that are frequently exposed in the media - immigration and membership in the European Union. In order to get a representation of the public opinions towards the investigated topics from two different European countries, the questionnaire will target Dutch and Slovenian undergraduate university students with a Facebook profile. The central question of this study is: to what extent is ideological selectivity to political information influenced by the use of social media?

LITERATURE REVIEW

News consumption in the age of social media

An increasing number of people are using social media channels as their primary source of news about political and social issues (Müller et al., 2016). Research (Vitak et al., 2010) showed that the hours spent on Facebook negatively impact political participation, but Valeriani and Vaccari (2015) demonstrated that accidental exposure to political news on Facebook positively impacted people's interest in politics and consequently their political participation.

Since the users that click on the links on Facebook tend to spend less time on websites than direct visitors, Facebook does not seem to contribute to the use of other news sources. The users might therefore feel well-informed through the news they encounter on Facebook and seek other information less often (Müller et al., 2016).

H1. *The feeling of being well-informed through news posts on Facebook promotes the use of Facebook as a substitute for other news sources.*

To investigate the possible contributing factors to the feeling of being informed through Facebook we will first look at the 'mere exposure effect'. It theorizes that the more often people come in contact with a stimulus, the more likely they are to develop a preference for it (Zajonc, 2003).

H2a. *A higher frequency of exposure to the Facebook news feed increases the feeling of being well-informed through Facebook.*

H2b. *A higher perceived percentage of news posts within the Facebook news feed increases the feeling of being well-informed through Facebook.*

H2c. *A higher (perceived) percentage of read news posts within the Facebook news feed increases the feeling of being well-informed through Facebook.*

H2d. *A higher perceived percentage of clicked links within news posts increases the feeling of being well-informed through Facebook.*

Furthermore, we hypothesize that there might be indirect (mediated) effects of exposure to news on Facebook and the use of Facebook as a substitute for other news sources, through the feeling of being informed.

H3a. *A higher frequency of exposure to the Facebook news feed indirectly increases the use of Facebook news as a*

'Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted under the conditions of the Creative Commons Attribution-Share Alike (CC BY-SA) license and that copies bear this notice and the full citation on the first page''

substitute for other news sources through the feeling of being informed (mediation).

H3b. *A higher perceived percentage of news posts within the Facebook news feed indirectly increases the use of Facebook news as a substitute for other news sources through the feeling of being informed (mediation).*

H3c. *A higher perceived percentage of read news posts indirectly increases the use of Facebook news as a substitute for other news sources through the feeling of being informed (mediation).*

H3d. *A higher perceived percentage of clicked news posts indirectly increases the use of Facebook news as a substitute for other news sources through the feeling of being informed (mediation).*

Selective exposure on social media

According to cognitive dissonance theory, people have an inner drive to keep their attitudes, beliefs and actions in harmony and avoid disharmony (Festinger, 1957; Garrett, 2009b). Hence selective exposure theory, as a result of cognitive dissonance theory, suggests that people expose themselves to external stimuli in a selective manner. Selective exposure leads people to seek information that confirms their views and avoid information that contradicts their views (Stroud, 2010).

The internet and social media provide their audience with a platform to select or avoid content in great specificity, hence creating an opportunity for confirmation-biased selective exposure (Stroud, 2010). This selectivity of information raised concerns among scientists, saying that confirmation bias could seriously impair political discourse in a democracy (Bennett & Iyengar, 2008). Studies (e.g., Stroud, 2010) had shown that partisan selective exposure (i.e. the selection of media consistent with one's political predispositions) leads to polarization, which further reflects in strong feelings towards those with contrary views (Bou-Hamad & Yehya, 2016).

H4. *Selective exposure leads to extreme opinions.*

Ideological selectivity to information was shown to result in political polarization, political misconceptions, and limited political discussion (van der Vis, 2016; Stroud, 2010). Stroud (2010) defined political polarization as the strengthening of one's original position or attitude to ideological extremes. It occurs in an environment, in which individuals are exposed only to information and communities that support their views, while ignoring the contradicting views.

H5. *People who use Facebook as a substitute for other news sources have more extreme opinions.*

H6. *The stronger the attitude towards a political issue, the more likely people are to select likeminded content about that political issue.*

H7. *Individuals are more likely to select political information about the issue they find personally important.*

Immigration

According to the results of 2015 Eurobarometer immigration is considered the most important issue facing the EU at the moment (European Commission, 2015). In the study of Card, Dustmann and Preston (2005) age and education were the most significant predictors of Europeans' attitude towards immigration. The higher the age of the respondent, the more likely he or she was to have a tight opinion about immigration. However, age is a more

influential factor in the West of Europe, than it is in the East (Butkus, Maciulyte-Sniukiene, Davidaviciene & Matuzeviciute, 2016).

H8. *Students from the west of Europe (Dutch) will have more liberal attitudes towards immigration than students from the east of Europe (Slovenia).*

Membership in the European Union

During the months after the Brexit vote the leaders of populist Eurosceptic parties in the Netherlands, France, Denmark, Germany and Sweden called out for their own referendums about the membership in the EU (Hobolt, 2016). However, the polls showed that despite the growing Euroscepticism, anti-immigration and anti-establishment sentiments, their voters are not as passionate about the idea of leaving the EU as were the British. Moreover, opinion of the membership in the EU of the young and educated has always been high. The results of 2015 Eurobarometer show that more than half of the Europeans are optimistic about the future of EU, with numbers in the Netherlands reaching 72% and 63% in Slovenia (European Commission, 2015).

H9. *Both groups of students will support membership in the EU, however, the support will be stronger among the Dutch students.*

METHODOLOGY

The population of interest for this study were full-time undergraduate students, between 18 and 23 years old (born between 1998 and 1994) who grew up and currently live in their home country (The Netherlands or Slovenia) and have a Facebook profile. Since previous findings show that education increases political interest and involvement, as well as imparts some degree of skepticism towards the views of the majority, this paper only focused on university students (Weakliem, 2002). The sample was therefore controlled for age, nationality, usage of Facebook, and level of education.

The sample consisted of 134 valid responses to 37 questions submitted between 21st and 28th of April 2017. Majority of the participants were female (68%) and the average participant was 21.09 years old ($SD = 1.33$). 72 participants were Dutch and 62 were Slovenian. All participants had a Facebook profile, and 86% of them logged in several times per day. On average, it took participants eleven minutes to complete the questionnaire.

The research was divided into two parts. First part (H1 to H3) aimed to measure which factors contribute the most to the feeling of being informed through Facebook and to the use of Facebook as a substitute for other news sources. It consisted of 12 Likert-scaled questions.

The second part (H4 to H7) aimed to measure the attitudes towards two current political issues and included a selective exposure experiment with 2 (political issue) x 2 (information bias) between-subjects design. Political issue included two levels - immigration and membership in the European Union. These issues are very important to EU citizens and stimulate a lively discussion on social networking sites (Coletto et al., 2017). The second experimental factor with two levels was information bias that included supporting and opposing arguments. The design was first presented in the work of van der Vis (2016). The scale proved to be reliable with Cronbach's alpha of 0.88. The questionnaire was created in research program Qualtrics and analyzed in IBM's statistical program SPSS 21.

RESULTS

Facebook as a substitute for other news sources

In the first part of the research, H1, H2, and H3 were tested using Spearman's rank correlation. The results showed that there is a very significant effect of (H1) feeling of being informed by Facebook news on replacing other news sources by Facebook, $p < 0.01$. Country played no significant role on the tendency to use Facebook instead of other news sources.

There is no significant correlation ($p = 0.128$) for H2a. For H2b, there is a very significant and positive correlation with a small effect size, $\rho = .311$, $p < 0.01$. Having a higher (perceived) percentage of news on Facebook increases the feeling of being well informed by Facebook news. Furthermore, there is a significant and positive correlation with a small effect size, $\rho = .302$, $p < 0.01$ for H2c. Higher (perceived) percentage of read Facebook news posts increases the feeling of being well informed by Facebook news. Lastly, there is a significant and positive correlation with a small effect size, $\rho = .318$, $p < 0.01$ for H2d. We can accept the hypothesis that a higher (perceived) percentage of clicked news posts increases the feeling of being well informed by Facebook news.

An independent sample t test was carried out to test if there are any significant differences in terms of feeling of being well informed by Facebook news between Dutch and Slovenian students. The author did not find any significant difference in terms of average scores, $t(132) = -1.538$, $p = 0.127$. This means that users of Facebook in the Netherlands and Slovenia on average feel the same way regarding information from Facebook news.

Testing for mediations (H3a to H3d) was done using linear regressions (Sobel's test). As we saw earlier there is no correlation between the frequency of visiting Facebook and the feeling of being informed by Facebook news. This means that feeling of being informed by Facebook doesn't mediate frequency of visits to Facebook replacing other sources. The regression analysis for H3b is $p > 0.05$, which indicates that perceived news percentage doesn't impact directly the tendency to replace other sources with Facebook. Hypothesis H3c can be confirmed since all the necessary connections are significant and according to the model there is a significant mediation effect. Lastly, H3d can be confirmed as well. Sobel's test shows that the major part of the effect (62.3%) is mediated.

Predictors of Selective exposure

To test whether selective exposure leads to extreme opinions (H4) the research looked into participants' opinion of the stimulus materials (articles). Since the results for both groups were not significant, this hypothesis is rejected. For the hypothesis H5 correlation matrix showed a significant positive correlation between all detentions of Facebook use. The correlation is rather high in each case with a ρ over 0.6. The results also showed that females are much more in favor of giving more power to EU institutions while males are much more inclined toward independence from EU. Lastly, opinion on Brexit seems to differ at some extent based on country and gender. People in the Netherlands think that UK leaving is less of a problem compared to Slovenians. In overall, we can confirm the hypothesis, that the people who use Facebook as a substitute for other news sources have more extreme opinions.

For the hypothesis H6 'The stronger the attitude towards a political issue, the more likely people are to select likeminded content about that political issue,' Regression analysis showed no significant effects.

People who think the topic of immigration is personally

important to them were more likely to select the immigration topic. However, the same is not true for the issues concerning membership in the EU. Since selecting immigration had a very significant impact (0.83) on importance of migration, we can confirm the hypothesis H7. In each case nationality and gender plays no role, $p > 0.05$. Lastly, the hypotheses H8 and H9 about the political issues, are both confirmed, showing that both groups of students support membership in the EU and immigration, but Dutch students have more liberal opinion about both topics.

DISCUSSION

The study shows that both Dutch and Slovenian college students do use Facebook as a substitute for other news sources. This result is surprising since the literature indicates that well-educated users more often get news directly on news websites (de Zúñiga, Jung & Valenzuela, 2012). However, considering that our sample consists of Facebook users aged between 18 and 23, majority (86%) of whom visit Facebook several times per day, such outcome could be expected. Furthermore, our research revealed that students who see more news on Facebook, as well as those who read and click more news feel very well-informed through Facebook (H2b-d). This coincides with the findings of Yoo & de Zúñiga (2014) that exposure to Facebook increases issue and civic knowledge for highly educated individuals. Nevertheless, the individuals who see many news posts and feel well informed might be experiencing a so called 'illusion of knowledge'. They might feel like they have considerable knowledge, while in fact they do not have it, as they did not read or memorize the content (Hall, Ariss & Todorov, 2007). In this way, news exposure on Facebook can widen the knowledge gap in society, especially if less-educated individuals who feel sufficiently informed through Facebook reduce the use of other sources (Muller et al., 2016). On a positive side, exposure to news can lead to unintended knowledge acquisition, increase in people's interest in politics and therefore also in the rise of political participation (Valeriani & Vaccari, 2015).

Selective exposure experiment had no effect on the polarization of people's opinions in this study, and there was no difference between the countries. The reason might be in the nature of our highly-educated sample (Bakshy et al., 2015), in short time interval of the exposure (Stroud, 2010), or in cognitive dissonance (Kahan, 2013), which led people to behave according to their beliefs. This explains why participants' reactions to the headlines resembled the attitudes towards the topics measured at the beginning of the questionnaire. However, the study confirms that people who use Facebook as a substitute for other news sources exhibit polarized attitudes towards political topic (H5). While previous research (Bakshy et al., 2015) demonstrated the existence of ideological segregation in relation to news consumption on social media, this study is the first one suggesting that receiving majority of the news from Facebook can lead to political polarization. The presence of friends and likeminded audience on Facebook might enhance individual's decision to get satisfied with the selection of news they encountered on social media instead of seeking for more on news websites. Goel, Mason and Watts (2010) found that on average, 80% of people's contacts have same political affiliation, showing that the exposure to likeminded content is inevitable.

The research question asked to what extent is ideological selectivity to political information influenced by the use of

social media. The findings show that social media positively influences the consumption of news shared on their platforms, which causes the feeling of being well-informed through the news encountered on social media. Those who feel that social media posts gave them enough knowledge about the current world events are less likely to visit news websites to gain more information. Since algorithms employed by the social media sort and filter the news to show the users just the information that fits them (Howard, 2016), they are increasingly exposed to one sided information. Our experiment showed a significant correlation between using Facebook as a substitute for other news sources and strong opinions towards political topics of immigration and membership in EU, indicating that ideological selectivity to political information is influenced by the use of social media.

CONCLUSION

This study suggests that people who see, read, or click more news posts on Facebook feel more informed about the current political issues, which leads to the use of Facebook as a substitute for other news sources. Moreover, individuals who find the topic personally important select an article about it even if it contradicts their views. This study showed a significant correlation between using Facebook as a substitute for other news sources and attitude strength, indicating that ideological selectivity to political information is influenced by the use of social media. The results of this study project the news consumption patterns of the highly-educated youngest generation of voters. Understanding their use of social media could help clarify new paths that spur political and civic action over the internet. Future studies could look into changing nature of news, in particular at the impact of fake news stories on user's political attitudes.

ROLE OF THE STUDENT

Petra Ravbar is an undergraduate student who did her independent research project under the supervision of Prof. Dr. Jeanne de Bruijn. The student proposed the topic, carried out the research and wrote the paper. The professor helped the student with the formation of the research question and with design of the questionnaire.

REFERENCES

- Bakshy, E., Messing, S. & Adamic, L. A. (2015). Exposure to ideologically diverse news and opinion on Facebook. *Science*, 348(6239), 1130-1132.
- Butkus, M., Maciulyte-Sniukiene, A., Davidaviciene, V., & Matuzeviciute, K. (2016). Factors influencing society's attitudes towards internal and external EU immigrants. *Filosofija sociologija*, 27(4), 292.
- Card, D., Dustmann, C., & Preston, I. (2005). Understanding attitudes to immigration.
- Coletto, M., Esuli, A., Lucchese, C., Muntean, C. I., Nardini, F. M., Perego, R., & Renso, C. (2017). Perception of social phenomena through the multidimensional analysis of online social networks. *Online Social Networks and Media*, 1, 14-32
- European Commission. (2015, July). Public opinion in the European Union (first results). *Standard Eurobarometer* 83.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Garrett, R. K. (2009b). Echo chambers online?: Politically motivated selective exposure among Internet news users. *Journal of Computer-Mediated Communication*, 14(2), 265-285.
- Goel, S., Mason, W., & Watts, D. J. (2010). Real and perceived attitude agreement in social networks. *Journal of personality and social psychology*, 99(4), 611.
- Hall, C. C., Ariss, L., & Todorov, A. (2007). The illusion of knowledge: When more information reduces accuracy and increases confidence. *Organizational Behavior and Human Decision Processes*, 103(2), 277-290.
- Hobolt, S. B. (2016). The Brexit vote: a divided nation, a divided continent. *Journal of European Public Policy*, 23(9), 1259-1277.
- Howard, P. (2016, November 15). Is Social Media Killing Democracy? *Oxford Internet Institute*.
- Independent, The. (2016, February 12). The Independent becomes the first national newspaper to embrace a global, digital-only future. The Independent.
- Kahan, D. M. (2013). Ideology, motivated reasoning, and cognitive reflection. *Judgment and Decision Making*, 8(4), 407-424.
- Mitchell, A., Gottfried, J., & Matsa, M. (2015). Facebook Top Source for Political News Among Millennials. Pew Research Centre. Retrieved from www.journalism.org/2015/06/01/facebook-top-source-for-political-news-among-millennials/
- Mitchell, A., Gottfried, J., Barthel, M., & Shearer, J. (2016). The Modern News Consumer. Pew Research Center. Retrieved from www.journalism.org/2016/07/07/pathways-to-news/
- Müller, P., Schneiders, P., & Schäfer, S. (2016). Appetizer or main dish? Explaining the use of Facebook news posts as a substitute for other news sources. *Computers in Human Behavior*, 65, 431-441.
- Stroud, N. J. (2010). Polarization and partisan selective exposure. *Journal of Communication*, 60(3), 556-576.
- Valeriani, A., & Vaccari, C. (2016). Accidental exposure to politics on social media as online participation equalizer in Germany, Italy, and the United Kingdom. *New Media & Society*, 18(9), 1857-1874.
- Van der Vis, B.I.E.V. (2016). Effects of Personal Predispositions on Selective Exposure. University of Amsterdam. [Master Thesis].
- Vitak, J., Zube, P., Smock, A., Carr, C. T., Ellison, N. & Lampe, C. (2010). It's complicated: Facebook users' political participation in the 2008 election. *Cyber-Psychology, behavior, and social networking*, 14(3), 107-114
- Weakliem, D. L. (2002). The effects of education on political opinions: An international study. *International Journal of Public Opinion Research*, 14(2), 141-157
- Yoo, S. W., & de Zúñiga, H. G. (2014). Connecting blog, Twitter and Facebook use with gaps in knowledge and participation. *Comunicación y Sociedad*, 27(4), 33-38.
- Zajonc, R. B. (2004). The selected works of RB Zajonc. San Francisco, CA: John Wiley & Sons Inc.
- de Zúñiga, H., Jung, N., & Valenzuela, S. (2012). Social media use for news and individuals' social capital, civic engagement and political participation. *Journal of Computer-Mediated Communication*, 17(3), 319-336.